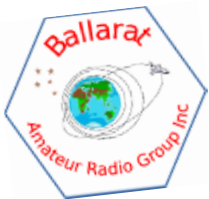


BARG Newsletter October 2024



Ballarat Amateur Radio Group Inc. #6953T

October 2024 Monthly Newsletter



Next General Meeting BARG inc
11:00am, Saturday 26th October 2024

At the Airport - All Welcome

Contacting us

BARG@BARG.ORG.AU

We're on the web.

www.barg.org.au

https://twitter.com/vk3_barg

<https://www.facebook.com/groups/VK3BML/>

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Cover Photograph; Ron VK3ECV

Times and dates of nets as below

Club Nets: VHF NET: Every Tuesday Night at 8 pm on 146.750 MHz - VK3RBA

HF NET: Every Thursday Night at 8 pm on 3.608 MHz - VK3BML

6m NET: Every Tuesday Night at 8:30 pm on 53.650Mhz RX / 52.650Mhz TX - FM
with a 91.5 tone - VK3RWU

LINKED REPEATERS: *The local VK3RBA-70cm repeater on Mt Buninyong is part of a network of linked repeaters covering North-Western Victoria.*

Access details for this repeater have recently changed.

*For full details of this linked network and access details
see <https://www.grz.com/lookup/vk3rba>*

You can listen to the system live <http://vk3rba.dyndns.org:441/>

This linked system may be accessed via IRLP node 9503.



**Ballarat Amateur Radio Group Inc.
(BARG)**

HAMVENTION

Sunday February 2 2025

At the Ballarat Polo-Crosse Club's
Facility, Ballarat Airport

Display and Sales (setup from 8am on the day)

Trade Table \$20.00 includes one admission,
(Space for 70+ tables, this is a big one!)

General Admission \$ 7.00 (accompanied under 15 free)

STRICTLY 10:00 AM START

Food and drink will be available

Enquiries and up to date details: BARG on the web
www.barg.org.au

The Next BARG General Meeting

Saturday 26th of October 2024

No BARG Construction Day

**has been scheduled for October due to the
condition of the rooms after the breakin.**

BARG inc. OFFICE BEARERS

President	Ben Daniel VK3NRD	Ordinary Member	Tom George VK3DMK
Vice President	Colin Consiglio VK3NCC	Ordinary Member	Ian Fairweather VK3YFD
Secretary	Peter Westgarth VK3APW	Ordinary Member	Doug Ellery VK3DRE
Treasurer	Chris Huggins VK3QY	Ordinary Member	David Martin VK3KQT
Ordinary Member	Craig Cook VK3KG	Ordinary Member	Mal White VK3OAK
Ordinary Member	Paul Black VK3TXR		

Bunnings Sausage Sizzle



BARG will hold another sausage sizzle on Saturday 9th November 2024. Bunnings Delacombe. We need helpers to commit a few hours on the day. The more we get to help, the less time everyone needs to participate.

If people can add into the diary, it will be appreciated.

To register your help on the day, let us know here;

https://docs.google.com/forms/d/e/1FAIpQLScArjhVocQhI82N7vkYRXT6hYITJbErHx_Sox_AydlwLDnPDw/viewform



The
SOUTHERN PENINSULA AMATEUR RADIO CLUB
in association with Eastbourne Primary School, proudly presents the spectacular

ROSEBUD RADIOFEST

Sunday November 17, 2024

at Eastbourne Primary School Auditorium, Allambi Avenue, Rosebud Vic.
Melway reference 169 K5. Follow the signs from Boneo Road.

Talk in on VK3RSP (146.675) from 8 AM.

**Over 50 stallholders offered bargains galore.
Multiple door prizes worth over \$1000!**

Morse Code Practice Oscillator

Contributor Peter VK3PWG.

I had been looking around for a simple cw practice oscillator, so I didn't need to keep using the radio in CW practice mode.

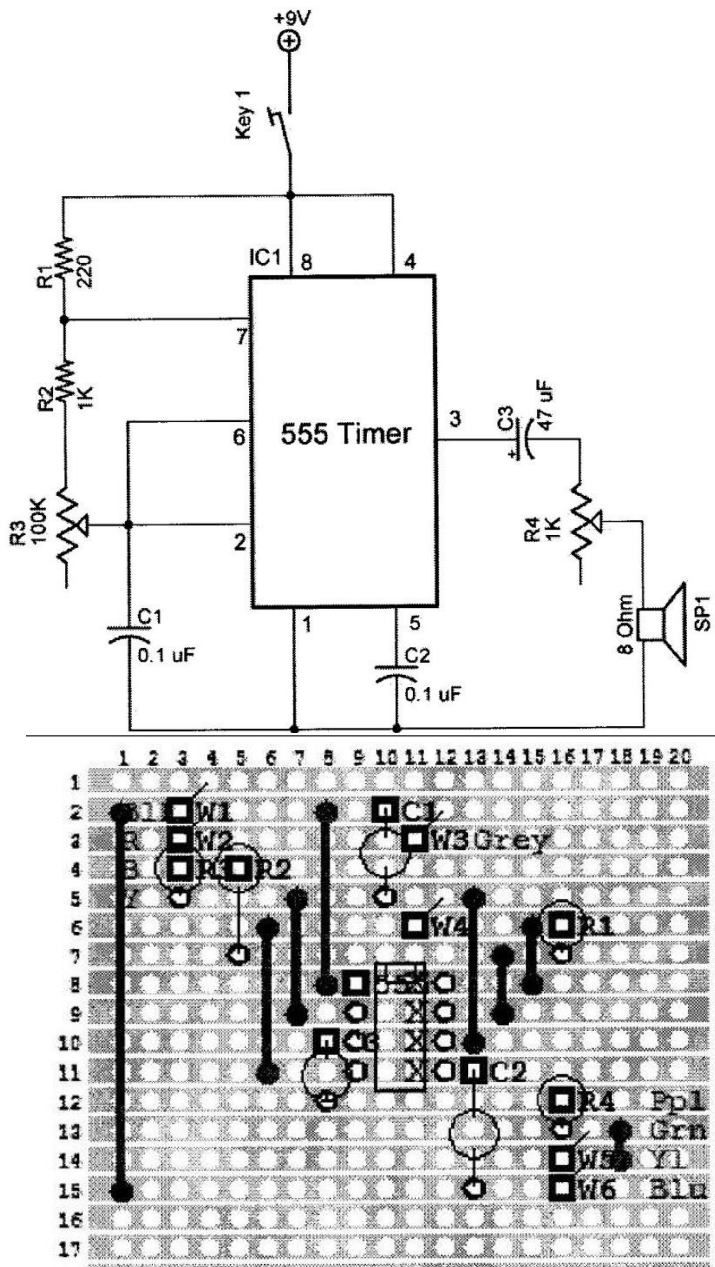
At first, I was looking for an Arduino based oscillator, but i recalled that I played around once before with a 555 IC to make LEDs flash so I searched and found dozens of variations.

The one I chose, for no other reason other than the pdf looked pretty, was this one

https://vk4ion.au/docs/CW_Practice_Oscillator.pdf

and having most of the components I thought I'd give it a go.

Components required:



- 555 Timer IC with PCB mount socket
- Resistor R1 220
- Resistor R2 1k
- R3 [Potentiometer] Logarithmic 100k
- R4 [Potentiometer] Linear 1k
- Capacitors C1 & C2 2 x 100nF [non electrolytic]
- Capacitor C3 47uF Electrolytic
- Speaker 8 Ohm to suit your jiffy box
- Socket, panel mount
- Battery clip to suit 9v battery
- Knobs x 2 to fit Frequency & Volume Pot shafts
- Jiffy box – approx. 130mm x 68mm x 44mm
- PCB circuit board - Vero board
- Supply of suitable link wire & solder/tools to suit

Optional – 4Pin header/housing PCB mount blocks to attach components with long wires.

Anyway, long story short after tossing the bits in a box a few weeks back, I needed a break from another project and clear some of the rubbish of the bench, so I finished it. It actually works pretty good.

The only difference that I made from how it is in the pdf, is that I used a proper speaker and not one of those flimsy little things from Jaycar.

I made use of mostly what I had on hand and only bought a couple of pots from Jaycar and scratched up everything else from out of the junk

box.

The first test sounded OK, so I thought I had better put it in a case, and I have been saving the little plastic boxes that cotton buds come in and it fits great, albeit it a little bit on the weak side but then again, it's only going to sit on the desk for practice.

The hardest part was drilling holes in the soft plastic case and planning how to hold the speaker in place.



Let me know if you want to use it or if you need anything else.
Cheers Peter VK3PWG, 73

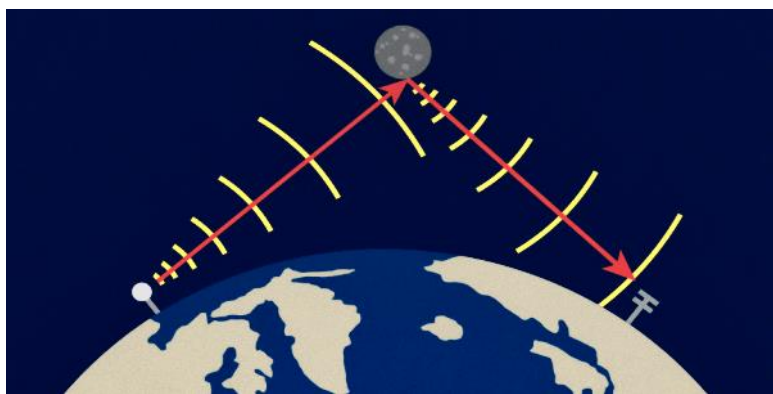
ARRL International EME Contest 2024

Contest Objective: To work as many amateur stations as possible via the earth-moon-earth path on any authorized amateur frequency above 50 MHz.

Dates:

Full weekend 48-hour periods (0000 UTC on Saturday through 2359 UTC Sunday).
Dates for 2024 remaining are; November 16-17 2024.

Effective in the 2024 event, the contest exchange will now be a station's four-digit Maidenhead grid square locator. The grid square now also serves as the score multiplier, replacing US states, Canadian provinces, and DXCC entities as the multiplier. Analog stations may optionally send a signal report in any mutually understood format if station size or propagation prohibit grid squares from being exchanged.



<https://www.arrl.org/eme-contest>

[Click here for the complete ARRL International EME Contest Rules \(PDF\)](#)

VHF and Above for October 2024

Not a lot to report on this month possibly due to my inactivity not watching the various reporting sites available to see what's going on. The main site I use is VKSPOTTER which is a place to see what activity is or has occurred on the VHF and above bands.

URL VKspotter; <https://vkspotter.com/>

How to use VKspotter; <https://www.vkspotter.com/wiki/doku.php>

Highlights seem to be spasmodic with not much in the way of propagation over longer distances at present. Hopefully this will change as we get into the warmer weather. I'm aware that there was a good opening on 6mx into Asia, The Pacific and South and Central America which I unfortunately missed.

The only other interesting activity was another burst of AURORA that lasted for a few days where contacts were made on both 6mx and 2mx. I did have digital QSO's on both 6m and 2m with stations in VK3. However, I did see that some VK3's were calling VK5PJ in the Barossa Valley area which would have been a good contact.

Let's hope it won't be too long before some good results are had. As always if you observe or have some good contacts, please let me know.

Till next time 73 de VK3AXH

VKspotter is a web-based tool designed for amateur radio operators, particularly in VK, to share and view spotting information.

It allows users to log and track their radio contacts, report on conditions, and share information about active frequencies and bands.

The platform helps operators connect with others, find active stations and provide real-time updates.

It features leaderboards, maps, and other tools to help operators locate DX and rare stations

I finally got eight hours of sleep. It took me three days, but whatever.

When someone asks what I did over the weekend, I squint and ask, "Why, what did you hear?"

Sometimes, someone unexpected comes into your life out of nowhere, makes your heart race, and changes you forever.

We call those people cops.

I just asked my husband if he remembers what today is. Call me playful but scaring men is so easy.

VHF UHF Field Day

Contest Manager

Roger Harrison VK2ZRH. Dateline: 9 August 2024

The **VK Contest Logger - VKCL, v4.15**, can now be downloaded from the **VK Contest Club** website. Mike Subocz' website is no longer online. The new URL is immediately below (and under "Logging Software"):

<http://www.vkcc.com/2022/11/09/vk-contest-logger-version-4-15/>



Kevin VK4UH operating on

Submitting logs: Contest participants should send logs to the WIA online log uploader in the usual way. Make sure you **include your callsign** so that we know whose log it is.

Contest Introduction

The Field Days provide VHF-UHF operators with the opportunity to "head for the hills" and see how far distant and how many stations they can work.

The Field Days have separate sections for single and multiple operator stations. The duration of the Field Day is 24 hours, but there are also 8-hour sections for operators who may not be able to camp overnight. Most club stations prefer to operate for the full 24 hours. The Field Days also generate plenty of activity from home stations, so there is also a separate Home Station section.

All contacts must be simplex: contacts through repeaters or satellites are not allowed. There is plenty of FM activity, but one feature of the Field Days is a high level of SSB activity.

It is possible to do very well with only modest antennas if you pick a good hilltop. Another option, if your station is easily transportable, is to operate from more than one location during the contest period.

Aim Of The Contest

The overriding aim is to get away for the weekend and have fun! But next after that, the aims are:

- to encourage more activity on VHF and microwave bands;
- to encourage people to work greater distances than usual by operating portable, and
- to provide opportunities for people to activate or work into new grid squares.

Contest History

The first VHF-UHF Field Day was run as a trial in January 1989. It was quite well received so it has continued since then. In 1998, there was a trial Spring Field Day which also proved a success. Support for the Field Days continued to increase, and a third event - the Winter VHF-UHF Field Day - was introduced in 2008.

In 2014, the WIA board decided that the contest should be run with two parallel sets of rules and scoring systems. John Martin VK3KM (now SK) departed as Contest Manager after the Winter 2014 event.

Since the Winter 2019 event, the Field Days have used a single set of Rules, using distance-based scoring, as per the previous Division 2 Rules. This resulted from the clear preference of participation and log entries moving to Division 2 over Division 1 across the prior year.

Upcoming Contest Date & Time

- **Spring 2024** - 0100 UTC Saturday 23 November through 0059 UTC Sunday 24 November (0400 / 0359 in VK6).



VK3FS 2019 Spring VHF

- **Summer 2025** - 0100 UTC Saturday 18 January through 0059 UTC Sunday 19 January (0400 / 0359 in VK6).
- **Winter 2025** - 0100 UTC Saturday 21 June through 0059 UTC Sunday 22 June (0300 / 0259 in VK6).

Contest Rules

Full details of the contest rules are available in the "Files for Download" section below.

Contest Scoring

VHF-UHF Field Days employ distance-based scoring, using your **6-character** Maidenhead locator (the Sub-Square).

Full details of the scoring system are set out in the Rules.

Further Information on Maidenhead Locators

Each four-digit Maidenhead locator (Square) identifies an area which covers one degree of latitude and two degrees of longitude. Detailed explanation of the Maidenhead locator system can be found in the Download section below. Also available is a computer program that can convert latitude and longitude into grid locators, and vice versa.

To find the six digit Maidenhead locator for any location, click this [Link](#).

Submitting Your Log

Logs should be accompanied by a cover sheet, as described in the rules.

Only electronic logs in VKCL or Cabrillo format are accepted now (no PDF or Excel, etc), unless some disability necessitates a paper log, which must be submitted as set out in the Rules. Upload your log files to the Field Day web site via this [Link](#)

Contest Results

The aim is to have results finalised approximately four weeks after the Field Day, with the results posted here, publicised via the usual WIA channels and then published subsequently in Amateur Radio magazine.

Contest Award

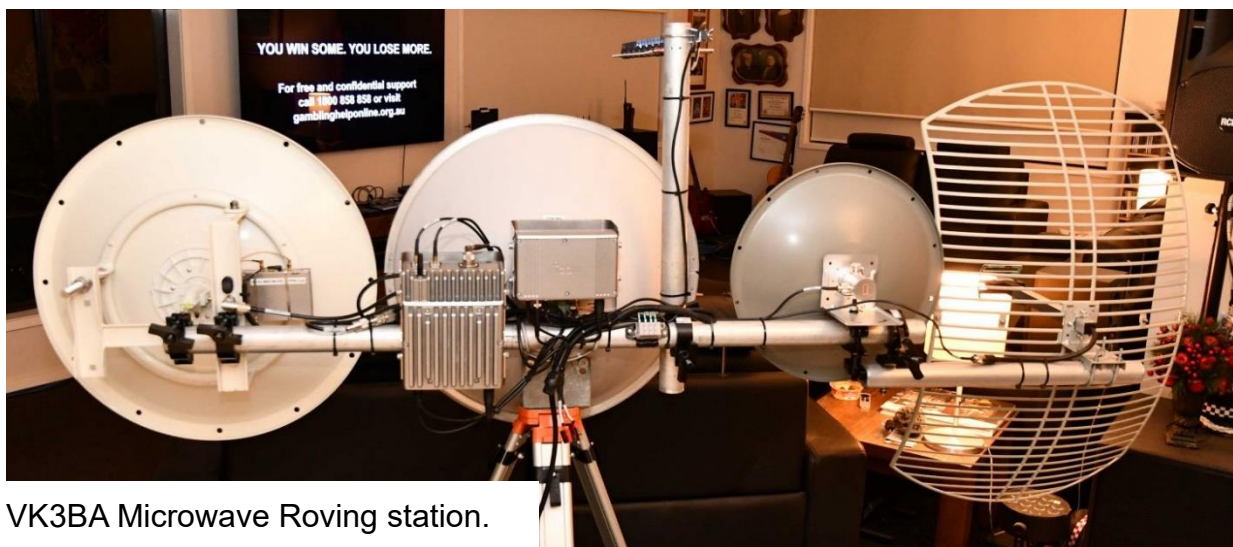
Each top-scoring station in every Section–Sub-section will receive a colour certificate in .PDF format, sent to the contact email address on their log cover sheet.

Top-scoring Foundation stations will also receive a colour certificate.

Logging Software

Any logging software can be used so long as the necessary information is included in the log. Please refer to the rules for details about this.

The most commonly used logging program is VK Contest Log (VKCL), developed by Mike VK3AVV (SK). It is available for download from the VKCC website by clicking on this [Link](#).



VK3BA Microwave Roving station.

Bloody Horses

Contributor Andy VK3COE

I was worried about the horses injuring themselves on the exposed tops of star pickets.

Flick went into town and bought a pack of 40 OH&S plastic covers, so they wouldn't impale themselves when acting up.

As I was walking down the lane putting the caps on, Chance, the younger horse was following me, picking them up with his teeth and throwing them onto the ground!



From post on Facebook by VK3COE, image by ChatGPT

A Golden Century 3LO



On October 13, 1924, 3LO burst onto the airwaves for the first time with a live broadcast of Dame Nellie Melba performing *La Boheme* at Her Majesty's Theatre.

Since that time, 774 ABC Radio Melbourne has been there through wartime, fire, flood, sporting achievements and incredible human triumphs.



	
Melbourne, Victoria	
Broadcast area	Melbourne RA1
Frequency	AM: 774 kHz DAB+: 9C Melbourne
Programming	
Language(s)	English
Format	Talk radio
Network	ABC Local Radio
Ownership	
Owner	Australian Broadcasting Corporation
Sister stations	List [show]
History	
First air date	13 October 1924; 100 years ago
Former frequencies	AM: 800 kHz (1924–1935) AM: 770 kHz (1935–1978)
Call sign meaning L ondon	
Technical information	
Licensing authority	ACMA
Power	50000 W
Transmitter coordinates	 37.72055°S 144.784034°E
Repeater(s)	FM broadcasting: 89.5 MHz Apollo Bay FM: 96.1 MHz Mount Donna Buang

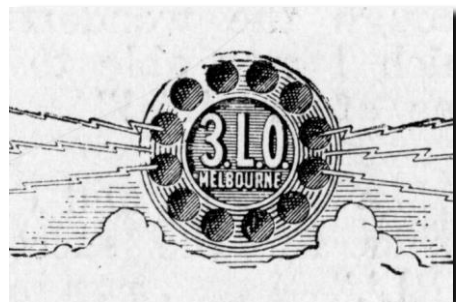
The two Melbourne stations (3LO and 3AR) had a studio in Melbourne Place, a laneway off Russell Street near Little Collins Street, until the building of Broadcast House in Lonsdale St in 1945.

The 3LO on-air studio at Broadcast House was studio 308, although for many years the news broadcasts came from Marland House in Bourke Street. The studios were transferred to the ABC's new Southbank Centre in 1995.

In its early days the station was involved in programs, such as *Kindergarten of the Air*, giving children in regional areas greater social awareness and preparation for school.

ABC Radio Melbourne's 774 kHz transmitter is located in Delahey, 20 km north-west of Melbourne's central business district.

The station broadcasts at a power of 50,000 Watts, covering the majority of Victoria, and one of two transmitters using the callsign 3LO, the other being at Marengo on 89.5 MHz with an EIRP of about 327 watts serving the Apollo Bay area.



Portland and South West Radio Group Field Trip



Portland & South West Radio Group

Contributed by Robert VK3ARM

Peter VK3HEW (President of the Portland Group) has organised a weekend away (Field Trip) to Mortlake on the weekend 8th, 9th and 10th November.

These details from David VK3DJC:

Field trip to be held in Mortlake at the Mortlake caravan park, 31 Montgomery Way in November.

For bookings ...Liz or Alf on 0409428870.

Please mention you are part of the PSWRG Radio club to get your discount.

Accommodation costs - Cabins \$140.00 Powered site \$32.00 and unpowered site \$28.00 10% reduction as a group booking.

I'm pretty sure that those costs are per day.

Cheers.... Robert VK3ARM

WIA Education Committee - Learn about Wireless Communications



From the WIA Broadcast, 18th October 2024

The WIA's Education Committee has launched a new website. The website has a dual

purpose:

Firstly, to promote amateur radio and lead a person through the various steps required to achieve an amateur radio Foundation qualification, and;

To act as an information resource so educational tools relevant to amateur radio in Australia are easy to find.

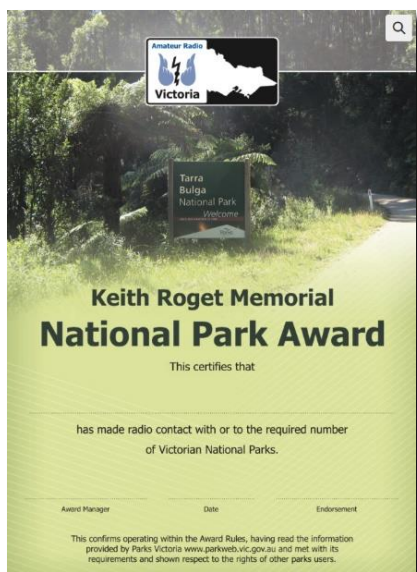
You will find new Educational Frameworks for the Foundation, Standard, and Advanced qualifications.

Although still a work in progress, there's quite a lot to see at:

www.education.wia.org.au

Learn about Wireless Communications
Become a Radio Amateur

14th Annual Keith Roget Memorial National Park Award



Amateur Radio Victoria is pleased to advise the 14th annual Keith Roget Memorial National Park Award (KRMNPA) activation period will be held across the weekend 9th and 10th of November 2024.

The ever-popular activation weekend is designed to promote and stimulate portable Amateur Radio operation activities in VK3 National Parks and also to assist Award chasers Log many of the 45 VK3 National Parks as they progress their award point tallies.

Regular updates and news will be sent to ARV members via E News and the ARV website over coming weeks.

For members wanting to be involved in the weekend it is suggested to join the KRMNPA Group.

The Group is free and can be easily joined and followed by visiting:

<https://groups.io/g/krmnpa>

Regards Ross VK3CE

<https://amateurradio.com.au/>

Secretary/Treasurer ARV

The aim of the Keith Roget Memorial National Parks Award is to encourage portable operation in Victoria's National Parks

The Award started around 1970 as the Victorian National Parks Award. The driving force behind it was Keith Vidmore Roget VK3YQ (SK), on the WIA Victorian Division Council after serving in the RAAF during World War II.

Wanting to keep the ideals of the Award, his widow Jean agreed in the mid-1980s that it was fitting it be renamed in his memory as the Keith Roget Memorial National Parks Award.

Discussions were held with Parks Victoria which notified its regions and rangers that they may expect to see amateur radio activity in National Parks.



BARG Members Club Dining Events

There are two monthly social events planned.

The ladies' morning coffee is planned for the first Tuesday morning of each month at 10:00am at **Live it Up**.

Greenhill Enterprise Centre, University Drive, Mt Helen

The dining day/night events are held on the 3rd Friday of each month at locations to be announced.

Daytime events will occur 3rd Saturday of each month at midday.

Notices will be sent out as a reminder to get numbers etc prior to booking each dinner.

Cheers. Ian VK3AXH

BARG Coffee Mornings

Come out for a chat, coffee, snack, and solve the world's problems, all in a morning.

Every Thursday Morning at 10:00 am

Food Seduction on Doveton

524 Doveton St Nth

Soldiers Hill

(The old Gove Bike Shop)

Thank you to all who are submitting articles and news to the BARG Newsletter.

Do not stop or if you haven't before, please think about what you can do for the club publication. Anything of AR/Electronics/History/Personal Experience relevance will be considered, if you think you are not much of a writer, then put something to paper and the editorial staff will set it up for you.

DEECA Mt Rowan WorkCentre and ICC

Contributions;

Tom VK3DMK,

Pip Younes Senior Communications and Media Adviser Grampians Region

Over the past 6 months or more I have noticed a building being constructed on the north end of the Old Creswick Road.

Most noticeable is the 53m free standing tower, festooned with antennas.



The sign at the front gate informs us that it is the DEECA (**Department of Energy, Environment and Climate Action**) **ICC (Incident Control Centre)**

A government department in Victoria, Australia. It is responsible for various matters related to the environment, energy and climate change.

I was able to contact Pip the DEECA Media Adviser and she gracefully supplied this information and some pictures.

The Mount Rowan WorkCentre functions as the Midlands District office and local work centre for Forest Fire Management Victoria staff. It is also an Incident Control Centre (ICC) for the Ballarat area (footprint) for Class 1 Emergencies (fire, flood and storm).

There are 40 ICCs across the state, three of which are in the Grampians region based in Ballarat, Ararat and Horsham.

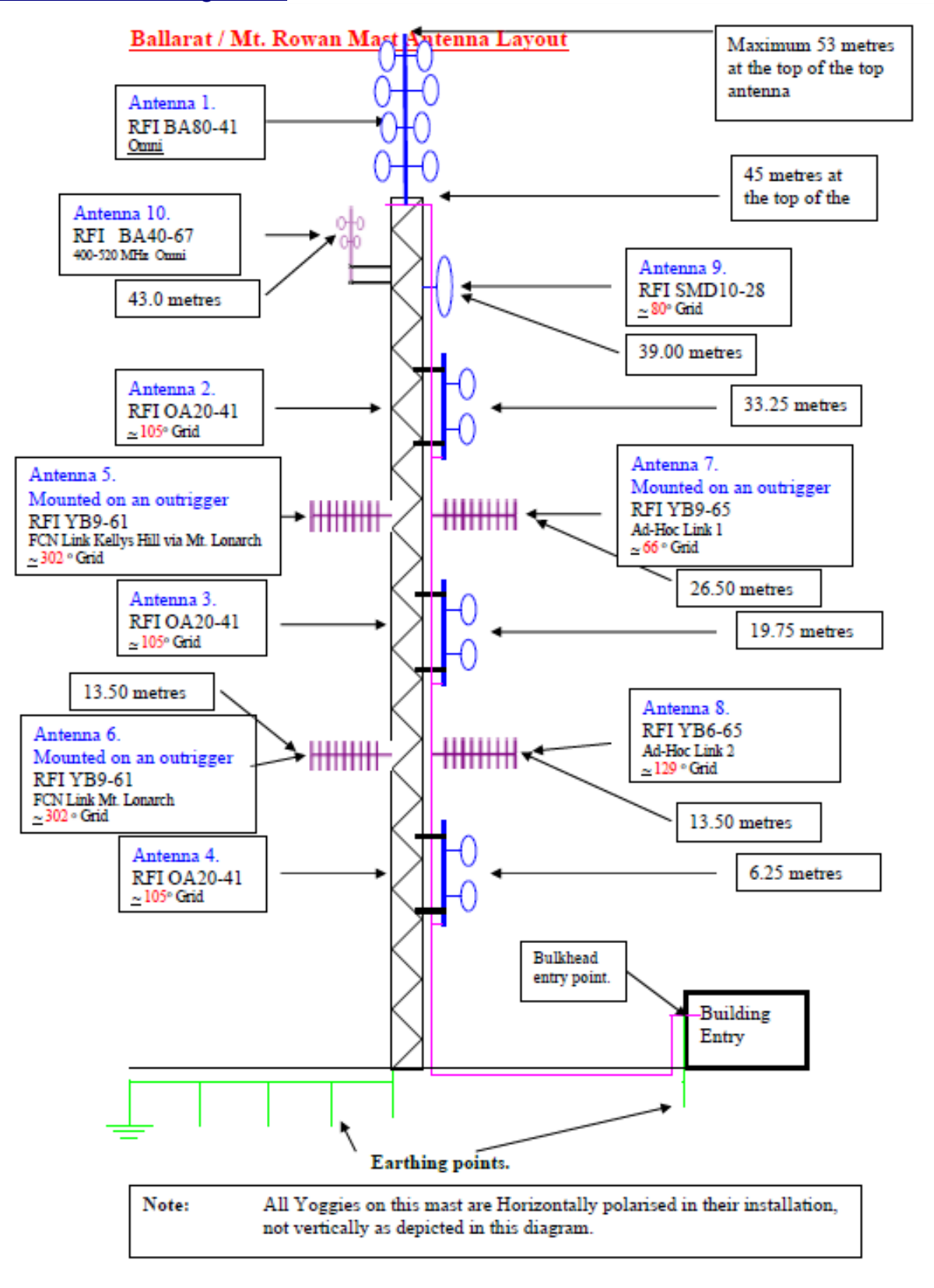
During an emergency the Incident Management Team (IMT) is staffed by people from a variety of agencies and is based out of the ICC. Some of the functions of the IMT include

Operations, Public Information, Planning and Logistics, that all play a critical part in the management of emergencies.

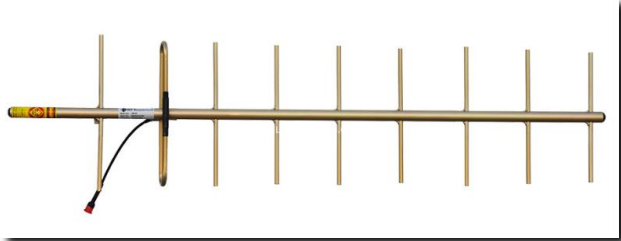
All ICCs have a backup power supply. The Mount Rowan ICC has a backup diesel generator.

The ICC is currently operational, having opened in late August 2024.

<https://www.deeca.vic.gov.au/>



Main Mast Antenna Configuration Table									
Antenna ID	Antenna Type	Antenna Height	Antenna Azimuth	Antenna Polarization	Tower Leg ID	Outrigger Azimuth & Length	Feeder Type	Feeder Length	Antenna Discription
A1	BA80-41	45 M +	Omni	Vertical	Top		LDF5-50	75 m	Binary Array 136-174MHz Low PIM
A2	OA20-41	33.25 M	98°	Vertical	Leg 3		LDF5-50	60 m	Offset Array 136-174MHz Low PIM
A3	OA20-41	19.75 M	98°	Vertical	Leg 3		LDF5-50	45 m	Offset Array 136-174MHz Low PIM
A4	OA20-41	6.25 M	98°	Vertical	Leg 3		LDF5-50	32 m	Offset Array 136-174MHz Low PIM
A5	YB9-61	about 26.5 M	302°	Horizontal	Leg 1	218° 0.5M	LDF5-50	51.5 m	Yagi 9 element 450-480MHz
A6	YB9-61	about 13.5 M	302°	Horizontal	Leg 1	218° 0.5M	LDF4-50	39.5 m	Yagi 9 element 450-480MHz
A7	YB9-65	about 26.0 M	66°	Horizontal	Leg 3	98° 0.5M	LDF5-50	51.5 m	Yagi 9 element 400-420MHz
A8	YB9-65	about 13.5 M	129°	Horizontal	Leg 3	98° 0.5M	LDF4-50	39.5 m	Yagi 9 element 400-420MHz
A9	SMD10-28	about 39.0 M	80°	Vertical	Leg 3		LDF5-50	64 m	Side Mount Dipole 70-85MHz Low PIM
A10	BA40-67	about 43.0 M	Omni	Vertical	Leg 1	218° 1.25M	LDF5-50	69 m	Binary Array 400-520MHz Low PIM



In Britain, it's called a lift but Americans call it an elevator. I guess we were just raised differently.

97% of people are stupid. Glad I'm in the other 5%.

My friend claims that he "accidentally" glued himself to his autobiography, but I don't believe him. But that's his story and he's sticking to it.

I never thought orthopaedic shoes would really work for me, but I stand corrected.

VK3NFS STEVE “NOT FOR SALE”

Contributor Steve VK3NFS, (Steve is a regular contributor to the BARG Facebook page.) VK3NFS was my mom's call who is now passed away, my dad and mom both had calls, dad is still alive in QLD.

I took her old callsign from the late 70s into the 80s, got my licence 13.4.2021.

Before that was on 11 meters and a lot of shortwave listening here. In time got sick of the junk on 11.

So, I sat the test and joined the North East Victoria Amateur Radio Club, just before I got cancer.

Used to a lot of phone but since chemo here and radiation treatment, don't use phone as much as it is hard to do.

So now its FT8 for me here some bag it, some love it.

But here in a way was a God send been up in North East Victoria now for over 5 years, in Wodonga.

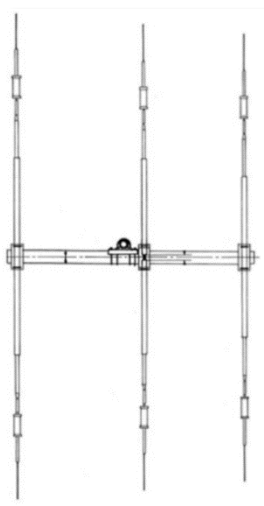
The radio is FTDX10 and FT7676.

The antennas 40-meter and 80-meter dipoles and TE33 Tri-Band other things we do is gold prospecting and gems, fishing at times.

Gold and Gemstone Prospecting Australia Facebook page.

<https://www.facebook.com/groups/2433376736939299/>

Cheers Steve VK3NFS.

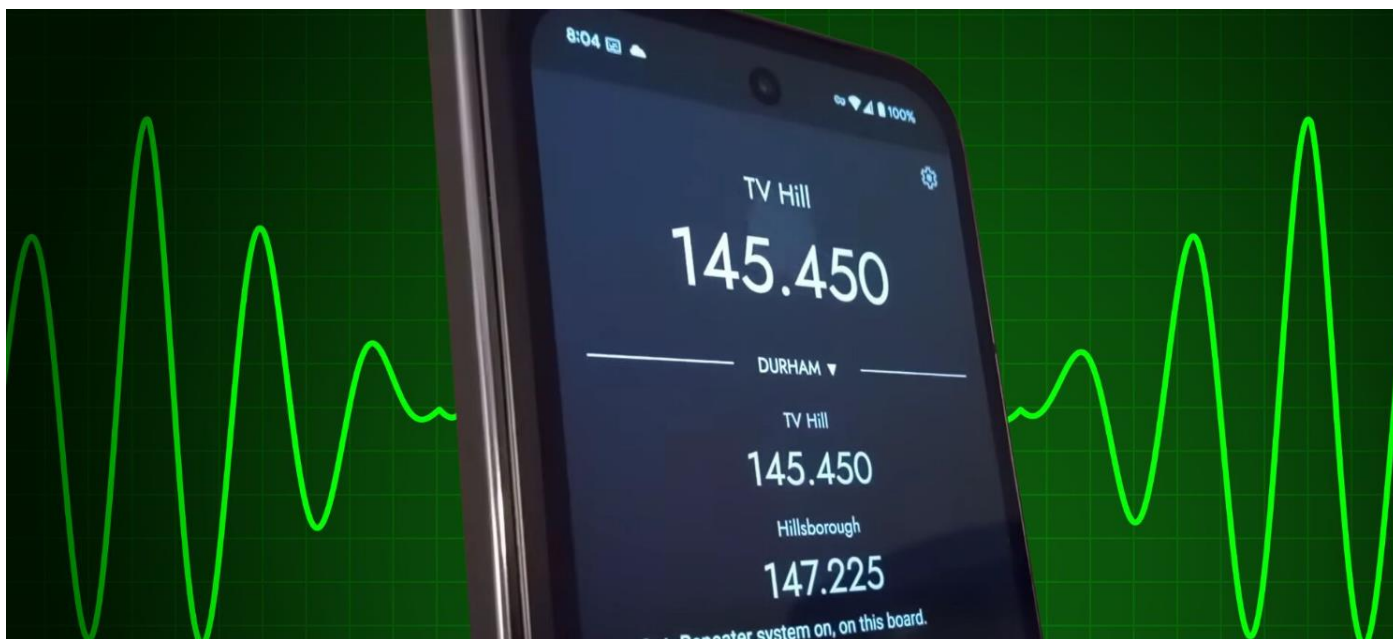


New Open-Source Project Transforms Android Phones into Ham Radio Transceivers

From Colin VK3NCC

Ham radio operator Vance Vagell has released a video detailing the Android-only companion app for the open-source kv4p HT project. Coupled with the plug-and-play USB-C radio, the kv4p HT app can send text messages, notifications included, using only radio-based APRS messaging.

The app can scan unlimited memories and groups and transmit/receive 44kHz 8-bit ADC/DAC audio. Additionally, the app further improves the audio quality by including a variety of filters to help users communicate accurately. Supported devices can even utilize Android's live captioning capabilities to maximize accessibility.



kv4p HT in action (Image Source: KV4P on Youtube - edits)

Thanks to the kv4p HT project, radio hobbyists can now extend their phones functionally to include off-grid communication. The radio module, which costs only \$35 to build, will allow operators to send SMS-like messages and communicate over long distances without the need for a cell tower.

Stephen Pereyra, Published 10/16/2024 FR ES ... Android Open Source

The hardware behind the radio magic is detailed on the kv4p website and includes the following:

- DRA818V radio module
- ESP-WROOM-32 dev board
- Short and or long antenna
- USB C 180-degree OTG male-to-male
- SMA female 90-degree connector
- Sticky gel pads
- Custom PCB

Fortunately, the website offers a video of the entire build process and set up as a supplement to the written instructions. Users must also print or order the custom case to house the radio components.

As exciting as the prospect of off-grid communication with this system is, it is important to note that it does require a license to use. Users must have at least a technician-class amateur radio license to legally broadcast signals. For those willing to do a bit of studying, a test is the only thing standing between them and amateur radio goodness.

<https://www.youtube.com/watch?v=9eXHgktFD-U&t=1s>

<https://www.kv4p.com/index.html>

<https://www.notebookcheck.net/New-open-source-project-transforms-Android-phones-into-ham-radio-transceivers.902140.0.html>

Atom 1: "I think I lost one of my electrons somewhere."

Atom 2: "Are you sure?"

Atom 1: "Yes, I'm positive!"

A neutrino walks through a bar.

A photon checks into a hotel. "Do you need help with your luggage?" the clerk asks.

"No thanks, I'm travelling light."

A mathematician walks into a bar. "I'll have a pint, and then half a pint and then a quarter of a pint and then an eighth of a pint."

The bartender, who is also a mathematician, interrupts him, "Two pints, coming right up!"

A biologist, a physicist and a mathematician travel together by train. Right after entering Scotland, they see a black sheep standing on top of a hill.

"Look at that," says the biologist. "Apparently the sheep in Scotland are black."

"Nonsense!" says the physicist. "All we can say for sure is that there is one sheep in Scotland that's black."

"I am afraid you are both wrong," the mathematician explains. "The only thing that is certain is that there is a sheep in Scotland, which is black on at least one side."

Why were the Romans so bad at algebra?

They always ended up with X equals 10.

The fact that jellyfish have survived for 650 million years despite not having brains gives hope to many people.

Before we work on artificial intelligence, why don't we do something about natural stupidity?

My daughter asked me for a pet spider for her birthday, so I went to our local pet shop, and they were \$70! Blow this, I thought, I can get one cheaper off the web.



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The WIA – the one source you can trust

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- ▶ Every licensee has a stake!
- ▶ Collective action over decades achieved all we enjoy
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- ▶ Effective, regular consultations with the amateur fraternity
- ▶ Always ensuring our privileges are aligned internationally



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- ▶ Always acting to have intruders removed from our bands
- ▶ Opposing interference threats

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- ▶ Keep up-to-date – local, global and space news
- ▶ Weekly nationwide broadcasts – 30 minutes of audience-based news
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- ▶ Trusted support for amateur radio clubs and societies

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- ▶ Facebook – www.facebook.com/wiavk
- ▶ Podcast – www.wia-files.com/podcast/wianews.xml
- ▶ Twitter – twitter.com/VKIWI
- ▶ Youtube – tinyurl.com/WIA-News-Videos
- ▶ Memnet – member-exclusive email bulletins

WIA history

Our origins go back to 1910, when the first Institute was formed to represent wireless experimenters to the government. Major reform of the Radiocommunications Act over the early 2000s, and to amateur radio licensing worldwide, saw a single national organisation formed in 2004 to meet the emerging challenges

WIA around the world

The WIA represents you internationally.

We're a member of the International Amateur Radio Union (IARU), which advocates for amateurs' interests to the International Telecommunications Union, particularly at its World Radio Conferences. These determine global radio regulations and frequency allocations.

The WIA is the only Australian amateur radio body with membership of the International Amateur Radio Union.

WIA national office: Unit 20, 11-13 Havelock Road, Bayswater, Victoria 3153

Hours: 9am-5pm EAST, Mon-Fri. Postal: PO Box 2042, Bayswater, Vic 3153



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Use our Online Membership system, visit:

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Or call (03) 9729 0400.

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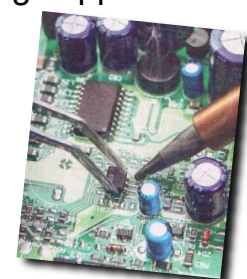
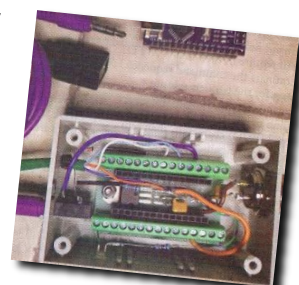
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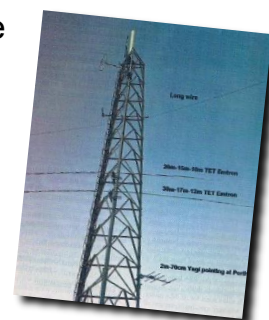
Magazine Reviews

Amateur Radio Magazine WIA Vol 92 Number 5

- P4 Editorial. Roger Harrison. Amsat Oscar 7, 50th anniversary. NBN and the HFC network.
- P5 Your WIA is working for you. 40m band frequency allocation. Tesla patents for wireless EV charging.
- P6 WIA News. Sunspot on a 23year high. WHO (World Health Organization) is looking into potential health effects from RF exposure. New Yaesu rigs were released at 2024 Tokyo Ham Fair. Clarification of exam re-sit assessment.
- P10 Spectrum Horizons; VHF-UHF-SHF happenings. New DX record 1mm band. The cake shop horn antenna for 122GHz rigs. Using Chirp radar to analyse 6m propagation around the world.
- P12 Experiments using digital transmission to identify VHF auroral propagation types. Rex VK7MO, Brodie VK3MAP. Using Q65-15C digital transmission mode to investigate auroral propagation between VK3MAP in Victoria and VK7MO in Tasmania, looking at forward and back scatter.
- P16 Antenna matching unit for balanced feedpoint antennas. Donald VK6JDM. The process of analyzing and improving a basic balanced matching unit along with construction and performance of the result model.
- P20 Command your Icom rig with this simple Arduino-based keyboard interface project. Peter VK2AN. A project that uses an Arduino Nano and a few power supply components to give you keyboard control of Icom's Computer Interface 5 protocol, it is a two wire interface using TTL level logic.
- P25 Comprehensive, innovative test sets for processing homebrew transmitters. Lou VK3AQZ. A MP3 signal source, a monitor unit using a DSO138 mini oscilloscope with a well-documented construction and alignment process.
- P31 Trade Showcase. RigExpert AA-55 Antenna Analyser.
- P32 A practical transverter for 241-250 GHz. Andrew VK3CV/WQ1Z. Using a TRA_240_091 integrated circuit transceiver you are shown the design approach and the resulting hardware transverter and the required gear to get it on air.
- P46 A good joint might be hard to find. Jim VK5JST. How the alloy mix of solders work and what mix for what application, and what tips to use.
- P49 Incident with RFI to the NBN resolved successfully. A problem in Kinglake with possible AR HF interference to NBN cabling. The NBN being transmitted along with old Pay-Tv cables.
- P51 On the bands, far out at Farina. Glen VK3CAM. While out a Farina, 700km North of Adelaide, volunteering in a historic building restoration project, operating AR in the outback from an on-site caravan.



- P53 Historic QSL Bureau. Fred VK3DAC, VK4FE, Curator, WIA Historic QSL Bureau. Looking at 2LO, 100year old QSL card and the antennas and frequencies used.
- P54 Contesting. Diane VK4DI, VK Shires 2024 Contest Manager. Vk Shires Contest 2024 results and report. Some logging problems but most logs were posted within 48 hours.
- P56 Newcomers Notebook. Jules VK3JFP. Looks at Hall Effect Transistors and how they work and used.
- P58 Op-Ed. David VK5BUG. The thoughts of a Navy telegraphist of 60 years and how he has seen the amateur radio scene change.
- P59 Below 25. Alec VK2MV. Some contests on the horizon for the younger operators.
- P60 ALARA. Jenny VK3WQ. Award for South African ALARA member, a proposed SYLRA (Scandinavian Young Ladies Radio Association) 2025 meet.
- P62 WestNews. Will VK6UU. VK6CRO remote station at Carnarvon has had an upgrade, what they found and what they added to the installation.
- P63 Trade Showcase. ADSB flight-tracking support from a Danish flight tracking company.
- P64 WIA DX Awards. Marc VK3OHM. An updated list of recipients.

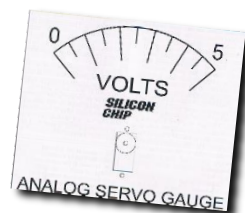


Silicon Chip October 2024 Review

- P2 Editorial: Three line acronyms, the increasing use thereof.
- P12 The Life of Nikola Tesla. Part 1. David VK3DSM. The beginning of an interesting history of Tesla, his ideas, his patents and experiments. A well-documented with illustrations and explanation text boxes.
- P20 3D Printer Filament Drying Chamber. Part 1. Phil Prosser. Construction and why of construction of a dryer. Using a microcontroller and heater to adjust the heat in an insulated sleeved container.
- P28 The MIPI I3C Bus. Andrew Levido. A look at a new version of I2C, enabling interrupts to be issued over the bus, rather than a separate interrupt line. A very close look at the data stream and register construction.
- P39 Circuit Notebook. Three-phase sinewave generator with TL074s. Micromite Plus Explore 100-base reflow oven controller. Supercap Boost Starter for Vehicles. GPS caravan clock and power monitor.
- P44 8-Channel Learning IR Remote Receiver. Look at the basics of IR signaling and the construction of a learning receiver using a PIC microcontroller with the choice of mixed relay and NPN terminal outputs.
- P54 Review; The MG4 XPower Electric car. Julian Edgar. 9 months of driving this EV and the author gives his opinion on the China made import.
- P63 1-24V Adjustable USB Power Supply. Jim Rowe. A look at module that accomplishes this convenient option for experimenters and its performance on the lab bench.

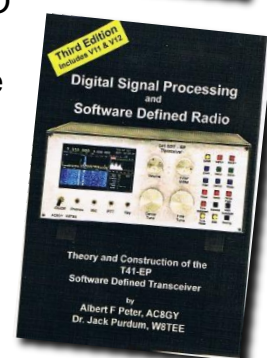
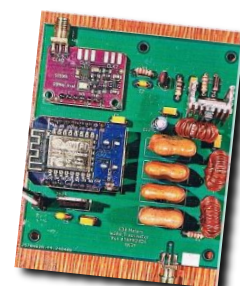


- P66 Mini Projects #012. Tim Blythman. WiFi Relay Remote Control. Using a Jaycar module and a relay module to construct a simple remote system
- P68 Mini Projects #015. Tim Blythman. Analog Servo Gauge. Using an LM393 and a micro servo, a simple circuit that turns a servo into a nice mechanical movement gauge. Adjustable end stops means you can customize the sweep angle of the needle.
- P72 Dual-Rail Load Protector. Stefan Keller-Tuberg. A unit that monitors more than one supply rail to protect your precious project, over voltage, current and polarity protection with LED indicators of the unit's condition.
- P82 MICROMITE EXPLOE-40. Tim Blythman. A controller that can be connected to a Rasp Pi, with USB-C connectivity and some LED and press button I/O.
- P89 Serviceman's Log. Dave Thompson. Unlit ruminations, Workzone MIG welder repair, Bando Technic 5D transceiver repair.
- P96 Vintage Radio. Dr Hugo Holden. The amazing NZ-made ZC1 MkII military transceiver. Made by Collier&Beale of Wellington NZ. 15,000 units were made during WWII, in field and maritime versions. Designed for easy service, it comprised of eleven valves and the restoration involved replacement of wax paper and some mica capacitors.
- P106 Mouser Electronics' new Melbourne office. A major worldwide electronics supply company has an plans for an Australian based headquarters and distribution Centre in Melbourne. Involving an automated robot storage system.

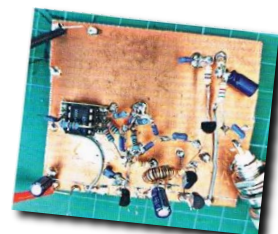


Sprat Issue 200 Autumn 2024 Review

- P2 Editorial. Steve G0FUW. 200th edition of a quarterly journal means 50 years for the club. SPRAT has about 4000 members and have issued over 17,000 members in the 50 year period.
- P3 General Nes. Prize for young (under 21) members for SPRAT article. Sales team ahs had some changes.
<https://www.ggrp.com/sales.htm>
- P4 Check Inductance via Resonance. Peter G4UMB. A circuit derived from a Practical Wireless project that uses a meter a NPN transistor and associated components to measure RF inductances.
- P5 Alan's 20/40m OATS antenna. Alan G4UWS. Using some CDs to make a spool to keep your 20m and 40m wire antennas neatly stored and easy to deploy.
- P6 QRP Experiments on the 630 Band. Bob AK3Y. Construction of a WSPR transmitter on the 472 – 479 kHz band. Uses an ESP8266, SI5351 Clock generator and a homebrew power amplifier.
- P9 Arduino Magic – a Triton VFO. Pete N6QW. Version 2 of this VFO for better performance.
- P10 Book Review. Martin GM5JDG. "Digital Signal Processing and the Software Defined Radio. Design and Implementation with code examples and online support.
- P11 Source of Crystals. Sebastien, F8CMH. A list of crystals from Mouser supplier suitable for amateur radio construction.
- P12 Multi-band Helically Wound Antenna. Paul 9H1FO. Construction of an antenna wound on a 7m fishing pole used with a SGC239 auto tuner.

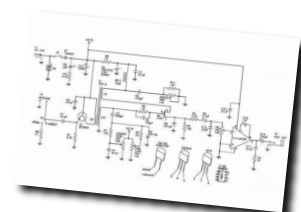


- P13 Compact Portable Antenna. Dick G0BPS. Using 6m long extending whips and a balun and a connection point made from wood a workable Y shaped antenna can be built.
- P14 GQRP "Mutz Nutz" Loop. Ian GM0SIM. A solution to getting an antenna into an antenna-unfriendly garden. Building a loop at the end of 30 feet of 450Ω ladder line across the space.
- P17 Sensitive Wideband AM Detector. Cor PA3COR. A detector that minimises the sensitivity effect of a series diode. Using a circuit designed with two PNP transistors and a TL071 the project can be used as a RF-millivolt meter.
- P21 CW QRPp Transmitter. David G8LHD. A crystal controlled Pierce Oscillator with keying circuit and break-in capability. A very informative project all constructed on a PCB.
- P25 Simple Superheterodyne Rx. (3.5 – 30 MHz). Oliver F5LGV. A simple high performance receiver with plug in coils and a crystal and crystal filter.
- P28 Communication & Activity Report. Enzo M0KTZ. 50 years of G-QRP and QRP basics publications. A look at the past front covers of SPRAT and the LOW suffix stations operating to celebrate the half century.
- P31 Valved QRP News. Paddy G4MAD. Review of some of the valve offerings that have been shown in SPRAT.
- P34 Members' News. Chris G4BUE. News and images from members across the world showing their latest construction or radio operation.



Lo-Key VK QRP Club September 163 2024 Review

- P4 President's Notes. Trevor VK5ATO. Discussion on Km/W for digital modes and the joy and satisfaction of kit building.
- P6 Club News. Kevin VK5AKZ. Welcoming new members and some jobs/positions in the club that need volunteers for and the reaction to the digital copy of the last Lo-Key.
- P9 QRP Hours Contest – 40M. Garry VK2GAZ. The rules and frequencies for the upcoming contest on Sunday 20th October 2024.
- P12 The Club Callsigns: VK5WAT and VK5QRP. The club now has use of these callsigns, but permission to use them must be obtained in advance from the club Secretary.
- P13 Review: Sputnik Regenerative Receiver. Peter VK3TPM. A review of the receiver kit available from PCBWAY. Some trial and tribulations about component specs, but a fun challenge.
- P15 The World's first QRP club? Peter VK3YE. Peter has been doing some internet sleuthing, tracking down early VK amateur radio newsletters and magazines. He has come up with some evidence that around the 1930's of QRP "club", from AR magazines of the time, Jim VK3NQ wrote for the magazine and wrote about QRP in "Amateur Radio and Broadcast Monthly" talking about club activities. Peter has provided a comprehensive list of references showing where you to can go looking at the history of AR in VK.



- P18 A "Bush Key" for portable operation. Jens VK4PE. Using some recycled metal containers and a simple press button and easy to use key can be constructed.
- P19 Working with Aerial Wire. David "Doc" VK5BUG. The advantages and disadvantages of the many different wire topography that can be used for an antenna, new or used conductors.
- P22 A Story from my childhood. Jens VK4PE. Tells of Jens' life starting at the age of 10 working in a radio shop in Germany to home repairs and at the time the philosophy of parts value or availability to determine a radio sets future.
- P23 RCA Connectors in QRP Amateur Radio. Jens VK4PE. The suitability of RCA connectors for RF is interesting, a typical connector has a passband of 0 -100 MHz, and at QRP levels can do the job of the more expensive RF connectors.
- P24 Member Classifieds. For sale and wanted.
- P25 Chis-Crossword. Chris VK1CT.



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MEGAWATTS IN THE WIND

Electricity produced from the wind could be contributing significantly to power requirements in Victoria during the early 1990s.

This is the view of Bruce Tregaskis, an engineer in the State Electricity Commission, System Planning Department.

Fifty sites along the Victorian coast has been assessed — and ten of these were selected for the installation of wind monitoring equipment.

The recording of wind speed, direction and duration began in February and will continue for two years.

Mr Tregaskis said after the data had been analysed

the SEC would be in good position to know the potential of wind generation.

Preliminary indications are that wind energy could be expected to contribute about two to three megawatts to the Victorian grid by the early 1990s.

This could need 20 or 30 generators with a capacity of about 100 kilowatts. Mr Tregaskis said in the long term wind generation was unlikely to contribute more than five to ten percent of the state's power requirement.

A 55 kilowatt aerogenerator was installed two years ago by the Mars confectionary company at Ballarat.

The SEC planned to install a 75 kilowatt version this year near Geelong.

(Source: SEC News, June 1985)

AR